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A NEW LIZARD OF THE GENUS VARANUS FROM NEW GUINEA

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During my stay in Chicago as one of the participants in the exchange program between the University of Chicago and the University of Frankfurt a/M., Chicago Natural History Museum made laboratory space available to me, and I was privileged to examine the collections. On account of my recent monographic review of the monitor lizards, I first examined the Museum's collections of this group, and was much interested to find three specimens from New Guinea belonging to a form evidently closely related to *Varanus indicus*, but falling outside the range of variation even of this variable species, so that they clearly represent an undescribed form. Since the typical subspecies of *indicus* was collected at the same locality, the new form is described as a distinct species rather than as a subspecies. The monitor is named for my friend and colleague of many years, Mr. Karl P. Schmidt, Chief Curator of the Department of Zoology of Chicago Natural History Museum. I take the opportunity to offer my heartfelt thanks to Mr. Schmidt and to Mr. Clifford H. Pope, Curator of Reptiles, for their cordial aid during my stay at the Museum.

Varanus karlschmidti sp. nov.

Type.—Chicago Natural History Museum No. 14107, from Marienberg, Sepik River, Territory of New Guinea. Adult male, collected May 27, 1929, by Karl P. Schmidt, Crane Pacific Expedition.

Paratypes.—Chicago Natural History Museum Nos. 14108–14109, adult males, with the same data (see fig. 86).

Diagnosis.—A *Varanus* closely related to *Varanus indicus indicus*, from which it is distinguished by its smaller, more elongate and more projecting nuchal scales; much smaller and more numerous temporal scales, 56 to 60 over the back of the head from rictus to

rictus instead of 35 to 50; smaller body scales, 183 to 191 around the body instead of 110–178; and decided tendency to yellow coloration of the head and neck. The more complete description, based on the three specimens at hand, is as follows:

Body form.—Head long, 2.11 to 2.24 times as long as broad, and 2.49 to 2.77 times as long as high; snout long, rather pointed; distance from the tip of the snout to the anterior border of the eye somewhat greater than that from the latter point to the anterior border of the ear; canthus rostralis rounded; snout raised above the nostrils, concave between them; nostril rounded, closer to the tip of the snout than to the eye, the relation of the former measurement to the latter varying from 1:1.46 to 1:1.65; ear-opening large; hind legs rather long; fingers and toes with curved claws; tail 1.45 to 1.68 times as long as head and tail, compressed, with a low double-keeled crest above; skull and teeth not examined, evidently without important difference from those of *indicus;* total length of type 1,195 mm.

Scutellation.—Upper head scales small, 6 or 7 supraoculars on each side, the supraocular semicircles separated by 8 or 9 scales; temporal scales small, 56–60 from rictus to rictus over the back of the head; interparietal slightly enlarged; nuchal scales without keels, small, the anterior ones rounded, posteriorly becoming longitudinally oval, separated by rings of minute scales; dorsal scales small, smooth, especially small on the sides; 183 to 191 scales around mid-body; ventral scales small, with rounded posterior border, smooth anteriorly, with very weak keels posteriorly; 100 to 105 ventrals from the gular fold to the place where the hind limbs join the body; preanal pores not discernible; scales on upper side of thighs small and smooth; scales on upper part of tail keeled, smooth ventrally on base of tail, keeled elsewhere and not arranged in verticils.

Color and pattern.—Back and upper parts of limbs dark gray with many small yellow dots that are less sharply set off from the ground color than in *indicus indicus;* nuchal region yellow; upper side of head of the same color in the type and in one paratype (No. 14108), passing into lead-gray; in the remaining paratype (No. 14109) the upper side of the head is uniform yellow, except for gray spots confined to supraocular and temporal regions; the unicolor grayish-yellow sides of the head are especially different from the coloration in *indicus;* under side uniform yellow.

Remarks.—The most conspicuous characteristic of the new monitor is without doubt the tendency to yellow coloration of the

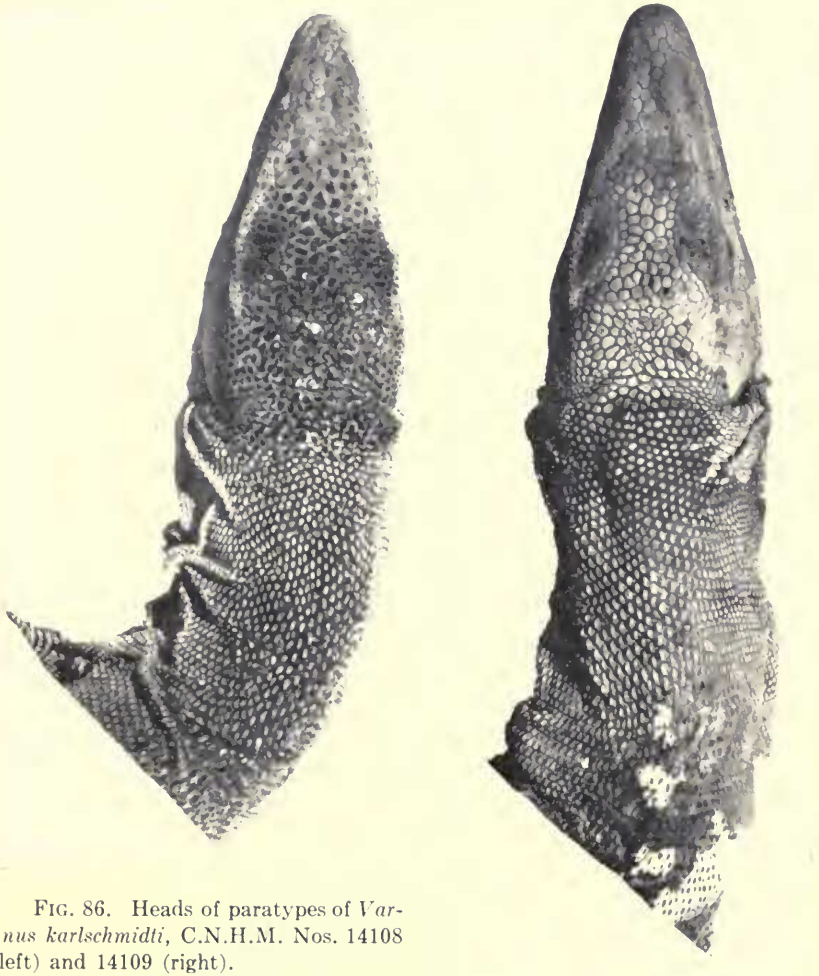

FIG. 86. Heads of paratypes of *Varanus karlschmidti*, C.N.H.M. Nos. 14108 (left) and 14109 (right).

head and neck. This direction of variation has not previously been known from any form of *indicus*, but it appears in the *salvator* series in *Varanus salvator cumingii*, which exhibits a distinct lightening of the upper side of the head. Whereas, however, large dark spots are retained in the head coloration in *cumingii*, *karlschmidti* may have such spots greatly reduced.

The measurements and scale counts of the three specimens are as follows (measurements in millimeters):

	Type No. 14107	*Paratype* No. 14108	*Paratype* No. 14109
Total length	1195	865	930
Tail	750	525	550
Head length	83.4	69.1	72.8
Head width	39.5	30.8	32.2
Head depth	33.1	24.9	26.5
Head length/head width	2.11	2.24	2.23
Head length/head depth	2.49	2.77	2.75
Tip of snout to anterior border of nostril (a)	15.7	14.4	15.0
Posterior border of nostril to anterior angle of eye (b)	26.0	21.1	22.0
b/a	1.65	1.46	1.47
Supraoculars (left and right)	6–6	6–6	7–7
Number of scales from rictus to rictus over the head	58	60	56
Number of scales around body	187	191	183
Number of scales from gular fold to anterior border of hind limbs	104	105	100

The three specimens of *indicus indicus* also collected by the Crane Pacific Expedition at Marienberg exhibit none of the tendency to yellow coloration of *karlschmidti*, and are further completely distinct in the number of head scales (35–44 from rictus to rictus), the number of scales around the body (103–139), and the number of ventrals (79–87). The number of supraoculars is also smaller, 4–5, 5–5, and 6–5, and they are separated by 2–7 scales instead of 8–9. The position of the nostril (1.31, 1.36 and 1.44) corresponds to the average for the same ratio in *indicus indicus* of 1.38, the average in *karlschmidti* being 1.52. The breadth of the head in *indicus* from Marienberg is somewhat greater (2.02–2.05) as compared with 2.11 to 2.24 in *karlschmidti*.

In scutellation *karlschmidti* is closer to *kalabeck* of Waigeu. A fine specimen of this species (C.N.H.M. No. 14201) was collected by Mr. Schmidt on the occasion of the Crane Pacific Expedition stop in Waigeu; the number of its nuchal scales (57) falls within the range of variation of *karlschmidti*. In scales around the body (109) and number of ventrals (89) *kalabeck* is quite distinct from the new form, and it differs also in having much narrower and more widely separated nuchal scales, and no tendency whatever to yellowing of head and neck.

The race *Varanus indicus spinulosus* described by myself from New Georgia Island in the Solomons has the small scales of *karlschmidti*, but has decidedly spinose nuchal and dorsal scales, and also has different head form and coloration.

There might be some question as to the distinction of *karlschmidti* as a full species, but the fact that *indicus* occurs at the type locality without indication of a transition seems to justify this interpretation. Mr. Schmidt, furthermore, informs me that the variety of habitat at Marienberg includes forest, river-swamp, and grassland; it is accordingly quite possible that *karlschmidti* is ecologically well isolated from *indicus*. Unfortunately, this point cannot be established from the specimens at hand, which were obtained from Papuan hunters.